Claims 1, 4, 22, 23, 26, 33, 34, 37-39, 42, and 44-49 are pending.

Claims 1, 4, 22, 26, 33, 34, and 37 are hereby amended.

Claim 50 has been added.

Claims 1, 4, 22, 23, 26, 33, 34, 37-39, 42, and 44-50 are now pending.

1.   (Currently Amended) An audio watermarking system comprising:

a pattern generator configured to generate both a strong watermark and a weak watermark; and

a watermark insertion unit configured to selectively insert the strong watermark into at least one segment of an audio signal and to selectively insert the weak watermark into at least one other segment of the audio signal, so that at least some resulting segments have either the strong or the weak watermark inserted therein, but not both, and

wherein the watermark insertion unit further configures the segments of the audio signal to enable detection of the inserted strong and weak watermarks based on a randomized correlation measure, the randomized correlation measure having a first expected value when a corresponding one of the segments contains no strong or weak watermark, and having a second expected value when the corresponding one of the segments contains either the strong or weak watermark.

2.   (Canceled).

3.   (Canceled).

4.   (Currently Amended)   ~~The~~   ~~An operating system comprising an~~ audio watermarking system as recited in claim 1, wherein the randomized correlation measure has an approximately normal probability distribution and a variance substantially smaller than one.

5-21.   (Canceled).

22.   (Currently Amended) An audio watermarking architecture, comprising:

a watermark encoding system configured to selectively insert a strong watermark into at least one segment of an audio signal and to selectively insert the weak watermark into at least one other segment of the audio signal, so that at least some resulting segments have either the strong or the weak watermark inserted therein, but not both; and

a watermark detecting system configured to detect a presence of a watermark in the segments of the audio signal and, if a watermark is present, further configured to determine whether the present watermark is either the strong watermark or the weak watermark, and wherein the watermark detecting system is configured to detect the presence of the watermark based on a randomized correlation measure, the randomized correlation measure having a first expected value when a corresponding one of the segments contains no strong or weak watermark, and having a second expected value when the corresponding one of the segments contains either the strong or weak watermark, the first and second expected values being different.

23.   (Original) An audio watermarking architecture as recited in claim 22, wherein the watermark encoding system resides at a content producer to watermark original audio content

and the watermark detecting system resides at one or more clients to detect the watermarks and play the original audio content.

24. (Canceled).

25. (Canceled).

26. (Currently Amended) A method for watermarking an audio signal, comprising:

watermarking a first portion of the audio signal with a strong watermark; ~~and~~

watermarking a second portion of the audio signal with a weak watermark, wherein the first and second portions are separate; and

detecting at least one of the strong and weak watermarks based on a randomized correlation measure, the randomized correlation measure having a first expected value when a corresponding one of the first and second portions contains no watermark, the randomized correlation measure having a second expected value when the corresponding one of the first and second portions contains either the strong or the weak watermark.

27-32. (Canceled).

33. (Currently Amended) A method comprising:

selectively encoding portions of an audio signal with a strong watermark and selectively encoding other portions of the audio signal with a strong watermark, so that at least some resulting portions have either the strong or the weak watermark encoded therein, but not both; ~~and~~

detecting a presence of a watermark in the portions of the audio signal based on a randomized correlation measure, the randomized correlation measure having a first expected value when a corresponding one of the portions contains no watermark, the randomized correlation measure having a second expected value when the corresponding one of the portions contains either the strong or the weak watermark; and

if a watermark is present, determining whether the present watermark is either the strong watermark or the weak watermark.

34. (Currently Amended) A computer readable medium having computer executable instructions for:

watermarking a first portion of an audio signal with a strong watermark; ~~and~~

watermarking a second portion of the audio signal with a weak watermark, wherein the first and second portions are separate; and

detecting at least one of the strong and weak watermarks based on a randomized correlation measure, the randomized correlation measure having a first expected value when a corresponding one of the first and second portions contains no watermark, the randomized correlation measure having a second expected value when the corresponding one of the first and second portions contains either the strong or the weak watermark.

35.   (Canceled).

36.   (Canceled).

37.   (Currently Amended) An audio watermarking system comprising: ~~;~~

a pattern generator configured to generate both a strong watermark and a weak watermark; ~~and~~

a watermark insertion unit configured to insert the strong watermark into a first segment of the audio signal and to insert the weak watermark into a second segment of the audio signal, wherein the first and second segments are separate; and

a detector configured to detect the presence of the strong or weak watermark based on a randomized correlation measure, the randomized correlation measure having an expected value of approximately zero when a corresponding one of the first and second segments contains no watermark, and having the expected value of approximately one when the corresponding one of the first and second segments contains either the strong or the weak watermark.

38.   (Original) An audio watermarking system as recited in claim 37, wherein the watermark insertion unit selectively chooses segments for insertion of the watermarks according to an audible measure of the segments.

39.   (Original) An audio watermarking system as recited in claim 37, wherein the watermark insertion unit selectively chooses segments for insertion of the strong watermark according to an audible measure of the segments.

40.   (Canceled).

41.   (Canceled).

42.   (Original) An operating system comprising an audio watermarking system as recited in claim 37.

43.   (Canceled).

44.   (Previously Presented) An audio watermarking system as recited in claim 1, wherein the one or more resulting segments having the strong watermark inserted therein are distinct in the frequency domain from the one or more resulting segments having the weak watermark inserted therein.

45.   (Previously Presented) An audio watermarking architecture as recited in claim 22, wherein the one or more resulting segments having the strong watermark inserted therein are distinct in the frequency domain from the one or more resulting segments having the weak watermark inserted therein.

46.   (Previously Presented) A method as recited in claim 26, wherein the first and second portions are separate in the frequency domain.

47.   (Previously Presented) A method as recited in claim 33, wherein the one or more resulting portions having the strong watermark inserted therein are distinct in the frequency domain from the one or more resulting portions having the weak watermark inserted therein.

48.   (Previously Presented) A medium as recited in claim 34, wherein the first and second portions are separate in the frequency domain.

49.   (Previously Presented) A system as recited in claim 37, wherein the first and second segments are separate in the frequency domain.

50.   (New)   The audio watermarking system as recited in claim 4, wherein the first expected value of the randomized correlation measure is approximately zero, and the second expected value of the randomized correlation measure is approximately one.